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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/814,569	03/30/2004	Steven M. Bennett	42P17572	6883

8791 7590 10/04/2006

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EXAMINER

WILSON, YOLANDA L

ART UNIT	PAPER NUMBER
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2113

DATE MAILED: 10/04/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/814,569

Applicant(s)

BENNETT ET AL.

Examiner

Yolanda L. Wilson

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 30 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 2, 13, 14, 19, 20, 23, 24, 27-30 is/are rejected.
- 7) ☒ Claim(s) 3-12, 15-18, 21, 22, 25 and 26 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_.

**DETAILED ACTION**

***Claim Rejections - 35 USC § 101***

1. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

2. Claims 27-30 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claims 27-30 contain the limitation 'machine-readable medium', which is not limited to statutory embodiments, instead being defined as both statutory embodiments, such as ROM, RAM and non-statutory embodiments, such as carrier waves, which is disclosed on pages 6 and 7, paragraphs 0014,0015.

***Specification***

3. The abstract of the disclosure is objected to because it begins with 'In one embodiment'. Please remove this phrase. Correction is required. See MPEP § 608.01(b).

***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1,2,13,14,19,20,23,24,27,28 rejected under 35 U.S.C. 102(e) as being anticipated by Armstrong et al. (USPN 7111200B2). As per claims 1,27, Armstrong et

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al. discloses receiving a request to transition control to a virtual machine (VM) from a virtual machine monitor (VMM); determining that a single-stepping indicator is set to a single stepping value; transitioning control to the VM; and if an execution of a first instruction in the VM completes successfully, transitioning control to the VMM following the successful completion of the execution of the first instruction in column 8, lines 23-41; column 8, line 58 – column 7, line 12. The logical partition is the virtual machine. The virtual service processor is the virtual machine monitor. The request to transition is between accessing to determine an active breakpoint and then to execute the breakpoint instructions and other debug functions including single-stepping. The indicator is the value of the breakpoint that is further used to debug.

6. As per claims 2,28, Armstrong et al. discloses wherein transitioning control to the VMM comprises informing the VMM that control is transitioned to the VMM due to a current value of the single-stepping indicator in column 8, lines 29-39.

7. As per claim 13, Armstrong et al. discloses wherein the single stepping indicator is included in a virtual machine control structure (VMCS) in column 4, lines 23-39; Figure 2. The structure is the location which stores the breakpoints and its values within the partition manager.

8. As per claim 14, Armstrong et al. discloses prior to transitioning control to the VMM, accessing a save activity state indicator, and saving a specifier of an activity state of the VM if the save activity state indicator is set to a save value in column 7, lines 39-44.

9. As per claim 19, Armstrong et al. discloses a virtual machine monitor (VMM); a data structure controlled by the VMM, the data structure storing a single stepping indicator; and single stepping logic to receive a request to transition control to a virtual machine (VM) from the VMM, to determine that the single-stepping indicator is set to a single stepping value, and, if an execution of a first instruction in the VM completes successfully, to transition control to the VMM following the successful execution of the first instruction in column 8, lines 23-42; column 8, line 58 – column 7, line 12. The logical partition is the virtual machine. The virtual service processor is the virtual machine monitor. The request to transition is between accessing to determine an active breakpoint and then to execute the breakpoint instructions and other debug functions including single-stepping. The indicator is the value of the breakpoint that is further used to debug. The structure is the location which stores the breakpoints and its values within the partition manager.

10. As per claim 20, Armstrong et al. discloses wherein the single stepping logic is to inform the VMM that control is transitioned to the VMM due to a current value of the single-stepping indicator in column 8, lines 23-42.

11. As per claim 23, Armstrong et al. discloses a memory to store one or more indicators; and a processor, coupled to the memory, to use the one or more indicators to determine that single stepping of a virtual machine (VM) is indicated, to execute a first instruction in the VM, and, if the execution of the first instruction completes successfully, to transition control to a virtual machine monitor (VMM) following the successful completion of the execution of the first instruction in column 8, lines 23-42;

column 8, line 58 – column 7, line 12; Figures 1 and 2. The logical partition is the virtual machine. The virtual service processor is the virtual machine monitor. The request to transition is between accessing to determine an active breakpoint and then to execute the breakpoint instructions and other debug functions including single-stepping. The indicator is the value of the breakpoint that is further used to debug.

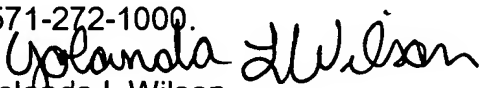
12. As per claim 24, Armstrong et al. discloses wherein the processor is to inform the VMM that control is transitioned to the VMM due to a current value of the single-stepping indicator in column 8, lines 23-42.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yolanda L. Wilson whose telephone number is (571) 272-3653. The examiner can normally be reached on M-F (7:30-4:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Beausoliel can be reached on (571) 272-3645. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
Yolanda L Wilson  
Examiner  
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